



A Comparison of the GPROF Algorithm Results in the 2A-CLIM and 2A GPM Data Products

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The GPROF algorithm is used to retrieve precipitation values from all the GPM mission partner radiometers (i.e. GMI, MHS, ATMS, SSMIS, AMSR2). GPM produces two precipitation retrieval products (processing at level 2) using the GPROF algorithm. One has the type designation 2A and the other the designation 2A-CLIM. As a result understanding the difference between the two products is important for using and understanding them.

Both of these GPROF products use exactly the same algorithm and a-priori databases. The only difference between the two types is the ancillary products used in the initial processing step. In the case of the 2A-CLIM products, ECMWF ERA-I is used as ancillary data. In the case of the 2A products, JMA's GANAL product is used as ancillary data. This presentation will provide a comparison between the two products using zonal mean comparisons. It will provide comparisons separately for land and ocean retrievals. It will compare the GMI differences over the entire current GPM mission life. As the only difference between the two products is the ancillary information used to create them, the comparison provides an elementary sensitivity study of the variables used from the reanalysis products and their impact on the GPROF retrieval. The purpose of the presentation is provide users with an insight into the two GPROF products and provide them key information useful when using either of the products in scientific studies. Lastly, the presentation also discusses the reasons why only the 2A-CLIM product can be produced for the 17+ years of TRMM era data products.